



Commentary

Response: 'The Discovery of New Zealand's oldest shipwreck'



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ABSTRACT

Based on the outcome of carbon dating wreck timbers found in New Zealand the article 'The Discovery of New Zealand's oldest shipwreck-possible evidence of further Dutch exploration of the South Pacific' in Volume 42 of the Journal of Archeological Science pp. 435–441 argues that the finds could be from an unknown early eighteenth century Dutch vessel sailing from the Dutch colonies in South–East Asia toward New Zealand. This response tries to explain why such a claim conflicts with the historical scholarship and therefore makes this attribution highly unlikely.

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1. Introduction

The publication of an article presenting data on finds discovered in New Zealand from a European vessel with a construction date of around AD 1705 \pm 9 years is important news for the exploration history of the Pacific. This conclusion was put forward in the *Journal of Archaeological Science* (Palmer et al., 2014). The vessel is located in Midge Bay in the large Kaipara Harbour area on the North Island. As the life expectancy of a vessel in this period very rarely exceeded 30 years, this find would signify the arrival of a ship between the first two recorded voyages to New Zealand: those of Dutchman Abel Tasman in AD 1642 and of James Cook in AD 1769. The article notes that copper sheathing was found with the timbers, and that the Dutch applied such copper sheathing to the underwater hulls of their vessels from the AD 1670s. The authors therefore state that it is not unlikely for the Midge Bay wreck to be an Asian-built vessel from the shipyards of the Dutch East India Company (VOC). They also state that the Dutch were in the best position to undertake such a voyage because of their shipping routes and presence in Indonesia. The vast majority of vessels that plied the southern Indian Ocean belonged to the VOC and sailed to Dutch colonies. The

VOC had also previously explored the coasts of western Australian and parts of the south coast.

Carbon–14 wiggle-match dating (WMD) was performed on one of the two pieces of wood from the original find in 1983. Soon after the wreck's discovery, estimated then at a length of 25–27 m long and 6.5–7.5 m wide, lying at a depth of 4–5 m, it was covered by sands, rendering it inaccessible. However, a recent survey, also reported in the article, seems to have located the wreck again. No archeological investigation has been performed on the wreck site and no other finds are available at the moment, apart from the two preserved wood pieces mentioned above. These two objects are therefore the only available sources for research, together with a short letter reporting the find in 1983 (Palmer et al., 2014 Supplementary material 2014).

As archeology in general, and particularly carbon dating and wiggle match methods, are not within my field of expertise I cannot comment on the methods section of the article. What I would like to do is consider the conclusions put forward in the discussion section by the authors. As Dr. Wendy van Duivenvoorde of Flinders University has already written a response (Van Duivenvoorde, 2014) this article will provide additional information and arguments.

2. The Dutch East India Company as an explorer

For Dutch shipping, between AD 1602 and AD 1799 the entire region of Australia and New Zealand fell within the exclusive

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charter of the Dutch East India Company (VOC): no other Dutch vessel was allowed to trade or even sail there. The AD 1630s and AD 1640s witnessed intense VOC activity, bent on discovering the area around Australia and the Pacific for the Company. The aim was to find new trade opportunities and preferably a source of precious metals. The VOC voyage of Tasman in AD 1642–1643 hoped to discover the Unknown Southern Continent somewhere in the south Pacific. During this voyage Tasman discovered the outline of a large part of New Zealand's west coast. After Tasman's voyage, however, the VOC's interest in exploring the unknown parts of the globe disappeared entirely, and there is no record of further voyages to New Zealand (Sharp, 1968, 317; Zandvliet, 1988; Schilder, 1975, 206–209). The Company was a bureaucratic organization and the archives both of the directors in the Netherlands and its officials in Asia have been very well preserved. The history of the VOC has been extensively studied by generations of scholars. Given the general company policy toward exploration and the preservation of the Company's records, it is improbable that a further expedition of the Dutch East India Company toward New Zealand could have escaped the attention of all contemporaries and later scholars. It is therefore unlikely that the vessel found in Midge Bay belonged to the VOC.

3. The derelict vessel

As no records are known of such a voyage in this period, the article discusses the possibility of the ship in Midge Bay reaching New Zealand without human interference. For this to happen, the abandoned, derelict vessel would have to have drifted towards New Zealand, entered the 6 km wide entrance of the Bay by chance and run aground inside. Although the authors admit this to be a rather unlikely scenario they discuss the possibility. They mention that with the prevailing winds and currents, a hulk could have drifted from the Indian Ocean through the Southern Ocean south of Australia and then northeast toward the North Island of New Zealand. Modern research with surface drifter buoys equipped with satellite tracking devices has established that floating objects can follow such a path. Most ships sailing a southern route in the Indian Ocean belonged to the Dutch East India Company. The article quotes that around seven percent of vessels of the VOC were lost in the period AD 1602–1699. These ships would therefore seem to be candidates for such drifting. The figure for losses is misleading, however. The vast majority of losses occurred in coastal waters and are known from local or VOC records. The only vessels of interest would be those that disappeared in the zone with westerly winds en route from the Cape of Good Hope toward Australia and Java in the last years of the seventeenth and the first decades of the eighteenth century. The return voyage can be ruled out in this respect because from Asia toward Europe, vessels followed a different course and did not enter the southern Indian Ocean. Between AD 1690 and AD 1750 three Dutch vessels disappeared on the route in question: the *Ridderschap van Holland* in AD 1694, the *Fortuin* in AD 1724 and two years later, in AD 1726 the *Aagtekerk* (Bruijn et al., 1979, 244–245, 374–375, 384–385).

However, the possibility that one of these vessels reached the coast of New Zealand can be ruled out. In the first place, VOC instructions explicitly stipulate a particular route. This mandatory route, like all known voyages across the Indian Ocean, lies far to the north of the indicated tracks of the buoys that drifted toward New Zealand (Bruijn et al., 1987, 70–72). Further, even if a floating hulk were drifting in the Southern Ocean, it would need to survive many months or even years afloat in the most violent seas on the planet in order to reach Midge Bay. It is impossible that a derelict vessel could have stayed on the surface for such a period of time in such waters. As the article points out, the floating buoys required just under a year merely to cross the Tasman Sea, and two to five years

(1) to drift from the Southern Indian Ocean to the coast of New Zealand. The possibility of the Midge Bay Wreck being an abandoned vessel coming from the Indian Ocean is non-existent. The wreck must have been a vessel navigated and handled by a crew in New Zealand waters.

4. The copper sheathing

The article claims that copper hull sheathing was applied from the AD 1670s by the Dutch and only later by the British and other European nations. This costly operation was done to prevent the underwater part of the hull fouling with weeds and barnacles and therefore slowing the vessel down. This argument puzzled Van Duivenvoorde in her comments as she could not identify the source for the information (Van Duivenvoorde, 2014). The article took as its source for this matter an English translation of the AD 1671 book on shipbuilding by the Dutchman Nicolaes Witsen: "If they [ships] want to go far west, a good doubling is applied to the bottom, in which innumerable nails are hammered: it is made of cow hair and also thin lead or copper is applied in between and all this to avert the pests which eat away the wood" (Hoving 2012, 188). However this does not refer to the copper sheathing, but to a seventeenth century practice of "doubling," involving the insertion of treated cow hair, lead, or copper between the ship's hull and a temporary, sacrificial wooden doubling. It is not likely that much copper was used in this way at the time. It has, as Van Duivenvoorde (2014) mentions, not been found archeologically. Copper was an expensive material but it does appear in the records and building specification of Dutch shipbuilders (personal communication A.J. Hoving). The information currently available on the piece of copper found in AD 1983 is very limited. If the piece was part of a strip originally inserted between the hull and sacrificial doubling there is no indication that this practice was exclusively Dutch either. Copper sheathing of the entire underwater hull was applied from the mid eighteenth century onwards, first by the British and later by other nations (Lavery, 1987 62–63). If the piece is a fragment of the copper sheathing of the underwater hull as stated by the authors then the wreck is likely to be from the late eighteenth or nineteenth century. In neither case does it indicate that the vessel must be Dutch.

5. Conclusion

In the late seventeenth and the entire eighteenth centuries the VOC showed no interest in exploration or voyages toward New Zealand. The derelict vessel theory is not viable. The piece of copper is not an indication that the vessel was Dutch. Present scholarship on the materials reported and preserved, together with the location of the wreck, seems to contradict a construction date of ca. AD 1705. Apart from the carbon dating of one wood fragment, all the other indications presented by the authors point to a vessel built in the late eighteenth or nineteenth century. In any case, the speculations on the basis of the very small amount of data available leads to only one conclusion: the recently rediscovered wreck needs sound archeological and sound historical research before its origins and date can be determined with any certainty.

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